WHAT IS CLAIMED IS:

1. A semiconductor dynamic quantity sensor comprising:

a semiconductor substrate that has a diaphragm changing a shape thereof in accordance with an application of a dynamic quantity;

a bridge circuit that has four gauge resistors formed on the semiconductor substrate, resistances of the four gauge resistors that vary based on a stress with respect to changing the shape of the diaphragm, each of the four gauge resistors that has a plurality of divisional gauge resistors;

a pair of first output terminals connected to a pair of respective first midpoints between the gauge resistors, a differential electric potential between the first output terminals that is used as a sensor output; and

a pair of second output terminals connected to a pair of respective second midpoints between the divisional gauge resistors, a differential electric potential between the second output terminals that is used as a diagnostic output,

wherein at least one of the first output terminals has plurality terminals connected to different positions of the midpoint, and

at least one of the second output terminals has plurality terminals connected to different positions of the wiring pattern.

2. The semiconductor dynamic quantity sensor

according to claim 1, wherein one of the first output terminals has not less than three terminals, and one of the second output terminals has not less than three terminals.

3. The semiconductor dynamic quantity sensor according to claim 1, wherein the second output terminals make a combination of the second midpoints at which an equal electric potential is measured when no pressure is applied to the semiconductor substrate.

4. A semiconductor dynamic quantity sensor comprising:

a semiconductor substrate that has a diaphragm changing a shape thereof in accordance with an application of a dynamic quantity;

a bridge circuit that has four gauge resistors formed on the semiconductor substrate, resistances of the four gauge resistors that vary based on a stress with respect to changing the shape of the diaphragm, each of the four gauge resistors that has a plurality of divisional gauge resistors;

a pair of first output terminals connected to a pair of respective first midpoints between the gauge resistors, a differential electric potential between the first output terminals that is used as a sensor output; and

a pair of second output terminals connected to a pair of respective second midpoints between the divisional gauge resistors, a differential electric potential between the

second output terminals that is used as a diagnostic output,

wherein at least one of the first output terminals and the second output terminals has plurality terminals connected to different positions of the midpoint.